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ALBERTA NEWSLETTER

INDUSTRIAL DEVELOPMENT BOARD OF THE PROVINCE OF ALBERTA
DEPARTMENT OF ECONOMIC AFFAIRS, EDMONTON, ALBERTA CANADA

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RICHARD MARTLAND, Director
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ALBERTA AND BRITISH COLUMBIA RAW MATERIALS FEED $65,000,000 CANADIAN CHEMICAL COMPANY PLANT

Completion of the $65,000,000 Canadian Chemical Company plant near Edmonton marks the beginning of a new industrial era in Alberta.

The plant is the first of its kind in the world which combines three separate and distinct operations. These are the petrochemical operations which will yield organic chemicals, the production of cellulose acetate, and the spinning and processing of filament yarns and staple fibres.

Raw materials from both Alberta and British Columbia are used by the plant. For the production of organic chemicals, liquified butane and propane from gasoline plants and recovered gases from Edmonton oil refineries are used while for the production of cellulose acetate flake, cellulose in pulp form from the company's pulp mill operation at Prince Rupert, British Columbia is reacted with certain of the organic chemicals to produce cellulose acetate flake.

When full production is attained, more than 25,000,000 pounds of cellulose acetate will be produced yearly. Of this, 15,000,000 pounds will be processed to acetate filament yarns and staple fibre, with the remaining 10,000,000 pounds marketed as flake. It is expected that part of this flake will be exported.

The yarn process uses cellulose acetate flake from the cellulose acetate process and acetone from the petrochemical process as its basic raw materials. Dissolved in a solution of acetone and water, the flake forms a viscous material which is forced through microscopic openings on a spinning machine to form fine filaments. A number of filaments are gathered together to form the required threads or filament yarns. Winding from one bobbin to another twists the grouped filaments, increasing their strength, elasticity and resistance to abrasion. The yarn is then wound on cones and shipped to mills for conversion into knitted and woven fabric.

In the manufacture of staple fibre, the filaments are grouped together to form a bundle known as "tow". This bundle is crimped, dried and cut into short lengths and the resulting staple fibre bailed for shipment. The fibre is then processed into a cotton type yarn or blended with other fibres. Acetate has a combination of desirable quantities not found in other fibres and is widely used in blended fabrics.

The petrochemical production yields formaldehyde, acetaldehyde, propionaldehyde, propylene oxide, methanol, acetone, and mixtures of heavier aldehydes, oxides, alcohols, and ketones. Some of the formaldehyde is marketed as a 37 percent formalin solution while the remainder is reacted with acetaldehyde to make pentaerythritol, which is produced in Canada for the first time at the Alberta plant. Pentaerthritol is used mostly in making alkyd resins for air-drying and baked finishes for metal products but other uses are in combinations with other materials in the manufacture of plastics, paints and explosives.

The purpose of the ALBERTA NEWSLETTER is to provide up-to-date information about development and opportunities in Alberta.

In this issue—

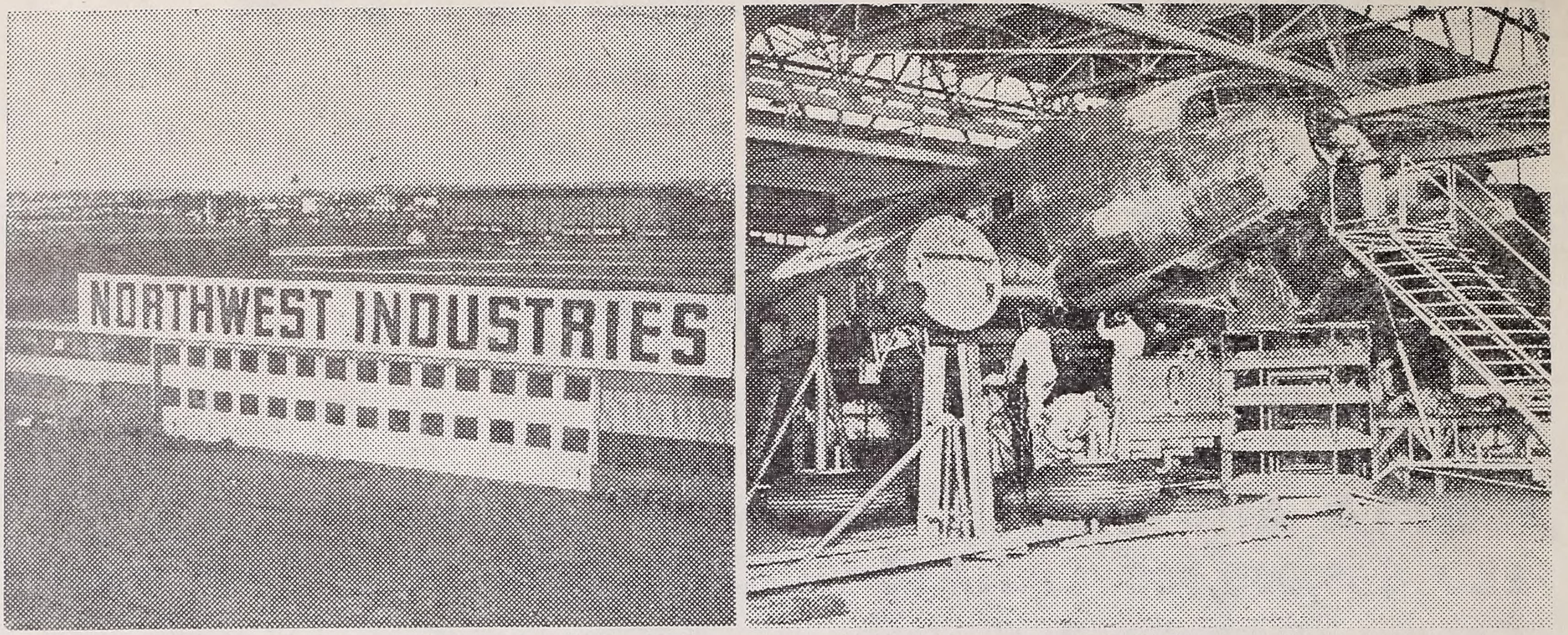
- Industrial Survey of Edmonton
- Canadian Chemical Company
- Northwest Industries Limited

Sale of Alberta Coal Promoted by Booklet

A booklet to promote the sale of Alberta coal in eastern Canada has been released by the Department of Economic Affairs.

Published to inform dealers and consumers on the properties and qualities of Alberta coal, the booklet gives the physical, chemical, storage and burning properties of the various coal groups and provides information on the use of coal in domestic heating appliances. One section gives the equivalent fuel costs of coal, oil and natural gas and lists the principal Alberta coal producers together with the trade names of their products.

The booklet was prepared by the Research Council of Alberta in collaboration with provincial and federal coal agencies. Copies are available from the Department of Economic Affairs, Legislative Buildings, Edmonton, Alberta.



. . . Exterior and Interior Views of the Aircraft Division . . .

Northwest Industries Limited of Edmonton

Two industries have played a major part in the development of western Canada—oil and aviation. They are served today by Northwest Industries Limited of Edmonton.

This large public company, located at the municipal airport in Edmonton, has become a leading manufacturer of oilfield equipment in Canada, and has followed the development of the aviation industry by maintaining and repairing private and military aircraft.

Northwest Industries Limited was organized in 1943, and became a leading industry when it purchased the buildings and equipment of the wartime Aircraft Repair Limited in 1946. The manufacture of aircraft was discontinued in 1948 and the company commenced to specialize on repair and maintenance work. In the same year, the plant began to manufacture trailers for the oil and transportation industries.

Today the company is operated in two sections—the machine division (formerly the Hoover Company) and the aircraft division (formerly Aircraft Repair).

The aircraft division is the main operation of the plant, employing about 800 of the 875 mechanics, technicians and office workers on the staff. It is one of the largest repair plants of its kind west of Ontario and has one of the finest instrument repair shops in the nation.

Both the aircraft and machine divisions employ staffs of highly trained personnel with some of the leading technicians being brought from England and western Europe to fill specialized positions. The present payroll of Northwest Industries Limited totals more than $3,000,000 annually.

In serving the oil industry, the paraffin scraper is one of the most important tools handled by the machine division. When oil drilling operations reach a certain depth, the accumulation of paraffin creates a serious problem. The scraper distributed by Northwestern Industries Limited has proven so successful that it now is used by almost 95 percent of the oil companies in Canada.

In addition to the scraper, the machine division makes metal toolhouses ,light plant houses, storage tanks and numerous other metal buildings required by the oil industry.

When oil companies complained that the single track bombardiers were too light for northern exploration, the machine division constructed custom metal bodies which would fit over the chassis of the heavier double-track machines. These have proven so successful that one oil company already has changed over completely to the new vehicles.

Another unit constructed by the machine division also has been in steady demand by the oil industry. This is the trailer camp—a modern mobile outfit specially designed for Alberta's extreme weather conditions. These metal trailers are manufactured and completely furnished as bunkhouses, offices, dining cars, kitchens, water and power units, or general service trailers. These units have been taken into some of the most desolate areas of Canada and have proven completely successful in temperatures ranging from 50 below to 100 above.

The aircraft division has been used primarily by the R.C.A.F. for the repair of military aircraft, but the interest shown by private plane owners is steadily increasing. The plant is large enough to hold about 20 twin-engined aircraft and is capable of turning out three or four completely checked and overhauled planes a month.

The aircraft division includes an instrument repair room, which is kept at a controlled temperature and humidity so that delicate instruments can be accurately set, sheet metal and welding shops, an upholstering shop, an electronics department where wiring, radio and radar are repaired, a fabrics shop, wing repair shop, engine room, washing room and storage shops.

At present, the aircraft division has handled only propeller-driven planes, but is equipped to repair the new jet-powered Lockheed T-33 training planes. Besides the standard private planes, the division repairs Dakotas, C119's or Flying Boxcars, Mitchell bombers and Harvard trainers.

EDMONTON

LOCATION: On the North Saskatchewan River, 60 miles south of the geographical centre of the Province. It is a divisional point on the transcontinental line of the Canadian National Railways; the northern terminus of the Canadian Pacific Railway; and the southern terminus and headquarters of Northern Alberta Railways. It is on Highway 2, south to the U.S., and north to Alaska, Highway 16 from Jasper to Lloydminster, and it is the terminal of Highways 14, 15 and 28.

ALTITUDE: 2,205 feet.

TEMPERATURE: Mean summer, 55.8°; mean winter, 22.8°; yearly average 36.3°.

RAINFALL: Average annual rainfall, 13.18 inches; average annual snowfall, 50.1 inches; average annual precipitation, 18.19 inches.

GEOLOGY: The Edmonton formation, a series of sandstones and sandy shales which are coal bearing. These beds also contain fossil remains of the dinosaur.

SOIL: Edmonton is in the black soil zone, which is the most fertile in the Province. This is the parkland belt-grassland which has been partially invaded by woodlands. Mixed farming is practiced in this zone.

HISTORY: Edmonton takes its name from Fort Edmonton, built in 1795 by the Hudson's Bay Company, 20 miles distant down the North Saskatchewan River and situated beside Fort Augustus, a North West Company fort. Both forts were destroyed in 1807 by Indians. New forts of the same names were built by the rival traders in 1808 within the present city site.

Edmonton became a village in 1871, was incorporated as a town in 1892 and as a city in 1904. The community on the south bank of the river became the town of Strathcona in 1899 and a city in 1907. The two amalgamated to form the City of Edmonton in 1912.

The discovery of oil at Leduc, just 20 miles south of Edmonton, opened a new phase in the city's progress in 1947. The newly-found oil industry was responsible for the advent of new manufacturing industries, supply outlets, machinery distributors and a general increase in business and population.

LIVING CONDITIONS: Edmonton lies in a wooded plain through which the North Saskatchewan River has cut a winding valley about 200 feet deep, with an average width of about three quarters of a mile. The natural parkland is generously endowed with deciduous and evergreen trees which provide a refreshing foliage in summer, beautiful colors in autumn and some green foliage during the winter.

The altitude, the temperate climate, generous rainfall and long periods of sunshine are responsible for the lush vegetation and the abundant yields of excellent cereal grains, vegetables and flowers. The temperature is healthy and invigorating, surprisingly free from humidity or hot dry winds.

Edmontonians are particularly sports-minded, giving keen support to hockey, baseball and football teams. Hunting is also popular, with ducks, geese and upland game birds to be found in the surrounding countryside, and big game to the west.

POPULATION: Population of the City of Edmonton proper is 183,411. There are 11,844 living in Jasper Place and 2,938 in Beverly, which gives greater Edmonton a total population of 198,193.

ADMINISTRATION: The city council is composed of a mayor and 10 aldermen. The mayor is elected for a two-year term and five aldermen are elected each year for a two-year term. Administration is carried out by a board of commissioners headed by the mayor, except for those departments governed by a board appointed by council.

LAW ENFORCEMENT: A total staff of 214 is responsible for law enforcement within the City of Edmonton. Edmonton is a judicial district and sittings of the Supreme, Appeal and District Courts are held here.

"K" division of the R.C.M.P. is housed in Edmonton and is responsible for the enforcement of federal statutes in the city and surrounding district.

FIRE PROTECTION: The fire department is under the supervision of a Board of Commissioners, and has a staff of about 170. There are five fire stations in the city, each equipped with modern equipment.

TAX STRUCTURE: 1953 mill rate for the City of Edmonton is 52.5 mills, made up of a general municipal levy of 7.17 mills, general debenture interest and redemption, 10.45 mills, schools 31.65, hospital 2.12 and library 1.11.

ROADS: Edmonton has more than 330 miles of roads, 80 of which are concrete, 10 asphalt and 132.8 gravelled.

AREAS: The city has an area of 26,776.6 acres, of which public parks and playgrounds occupy 2,147 acres and the North Saskatchewan River occupies 1,000 acres.

SEWERS AND WATER MAINS: 327 miles of water mains, 31 miles of storm sewers, and 308 miles of sanitary sewers.

POWER: The city operates its own steam electric plant and distribution system, using natural gas and sub-bituminous coal as fuel. Domestic lighting rates are four cents per kilowatt hour for the first 40 kilowatt hours, two cents per kilowatt hour for the next 110 killowatt hours and 1½ cents per kilowatt hour for all over 150 kilowatts.

WATER: The waterworks, including the distribution system are city owned and operated. Water is obtained from the North Saskatchewan River and forced through treatment plants that clarify, soften and sterilize it, then pumped to the distribution system by four high-lift pumps. Metered rates apply.

NATURAL GAS: Natural gas is supplied under franchise by Northwestern Utilities Limited, from the Viking-Kinsella and Leduc fields. The calorific value of this gas is 957 b.t.u. per cubic foot at 50° F. and 13.82 pounds absolute pressure. Natural gas is available to all domestic customers at a rate of $2.40 per month for the first three MCF and 25 cents per MCF for all additional MCF. Special rates for commercial, industrial, and large consumers are available.

NATURAL RESOURCES: Cereal grains, sub-bituminous coal, clay for bricks and building tiles, dairy products, electric energy, forage crops, furs, natural gas, gravel, livestock, honey, oil, poultry and poultry products, common sand, straw and water.

HOSPITALS: There are four general treatment hospitals with a total of 2,389 beds. The University Hospital also has a wing used only for armed forces veterans.

The Aberhart Memorial Sanatorium, operated by the Provincial Department of Health, has a capacity of 300 beds for tubercular patients.

The Charles Camsell Indian Hospital is operated by the Federal Department of Health. There are 450 beds and a staff of 250.

The Oliver Mental Hospital, located 10 miles east of the city, has 1,300 beds, plus a special t.b. wing for mental patients.

In addition, there are a variety of health clinics.

TRANSPORTATION: Edmonton is a divisional point on the transcontinental line of the Canadian National Railways, the northern terminus of the Canadian Pacific Railway and the southern terminus of the Northern Alberta Railways. Trans-Canada, Canadian Pacific, Northwest and Western Airlines operate regular flights out of the Edmonton municipal airport which uses an instrument landing system and radar for ground control approach. There are 16 hangars, and an airplane manufacturing and repair plant at the airport. Charter flights are operated out of Edmonton by private, local and crown companies. There are eight bus lines operating out of Edmonton for all points.

NEWSPAPERS AND COMMUNICATIONS: One daily newspaper, The Edmonton Journal, and six weeklies. Edmonton is served by five English-speaking radio stations and one French. There are three railway telegraph companies, the Alberta Government Telephones, Edmonton City Telephones, Northwest Communication System, postal service and airmail.

EDUCATION: Close to 40 elementary and junior high schools, six high schools and 24 separate schools serve Edmonton. There is also the University of Alberta, and various commercial, art, specialty and trade schools.

INDUSTRIAL DEVELOPMENT: Edmonton's future holds great promise for industrial development. Local resources provide ample opportunity for manufacturing and refining industries. New industries to utilize the by-products of refineries and chemical plants, supply houses for new industries, and equipment manufacturers will find Edmonton offers generous opportunities for success. Edmonton has ample power, water, and natural gas; it is a distributing and shipping centre for an area that reaches to the Yukon and Alaska; and it has available, industrial sites convenient to transportation facilities.

FOR FURTHER INFORMATION ON
EDMONTON, WRITE:

Graham W. Curtis,
Industrial Commissioner,
City of Edmonton,

or

Director of Industrial Development,
Legislative Buildings,
Edmonton.